A Rare Form of Gastrointestinal Lymphoma Presenting with Acute Bowel Obstruction and Perforation: A Novel Use of Robotics in Emergency General Surgery

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INTRODUCTION

Monomorphic epitheliotropic intestinal T-cell lymphoma (MEITL), formerly known as enteropathy-associated T-cell lymphoma (EATL, Type II), is a rare primary intestinal T-cell lymphoma. It accounts for 10-34% of all intestinal T-cell lymphomas, which themselves make up less than 5% of all peripheral T-cell lymphomas. MEITL is often diagnosed pathologically after surgery for bowel perforation or obstruction, with 40% having stage IV disease at time of diagnosis. This contributes to a poor prognosis, with an estimated mean overall survival time of 7 months. Approximately 50% of MEITL patients require emergency surgical intervention due to advanced-stage presentation of acute small bowel obstruction(SBO) or perforation, often resulting in peritonitis, septic shock and multiple organ failure. Therefore, acute care surgeons ought to be familiar with this unusual pathology.

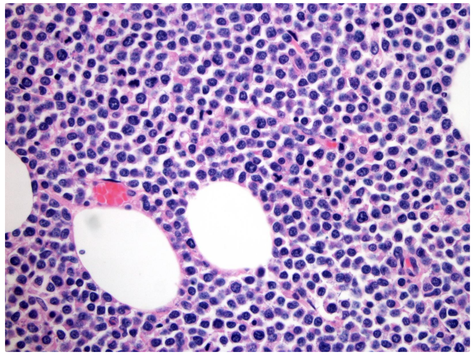
CASE PRESENTATION

- We present the case of a 55-year-old-make without history of abdominal surgery who presented with pneumoperitoneum and peritonitis concerning for perforated viscus. Emergency robot assisted (RA) diagnostic laparoscopy revealed a small bowel perforation with uncontained abscess necessitating resection and primary anastomosis. Pathology demonstrated diffusely infiltrated atypical lymphocytes with abundant apoptotic and mitotic figures, and pre-dominant CD3+ T-cells and CD20+B-cells, consistent with MEITL. Two months later, the patient returned with recurrent perforations, both adjacent to and distant from the prior anastomosis, raising concern for early recurrent disease and necessitating resection and diversion. Post-operatively he developed multisystem organ failure, in the setting of septic shock, and the family elected to withdraw care after two weeks.

DISCUSSION

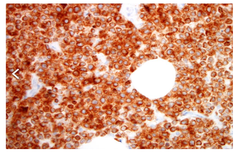
- Despite the dire consequences of late-stage MEITL diagnosis, there are currently no established screening guidelines or standard treatments for MEITL. Research suggests optimal treatment involves a combination of chemotherapy and surgery, followed by stem cell transplantation. However, immediate chemotherapy is frequently contraindicated in the early postoperative setting of advanced disease requiring surgery. The most successful outcomes are achieved when patients are treated before complications requiring surgical intervention arise. Familiarizing surgeons with MEITL can lead to more accurate diagnoses, better perioperative management, and quicker transitions to definitive oncological treatments, highlighting the crucial role acute care surgeons play in the initial management of MEITL. The objective of our case is to acquaint acute care surgeons with this uncommon presentation of lymphoma, thereby facilitating the timely initiation of chemotherapy and prompt oncological referral following surgical intervention. Furthermore, initial surgical management of these patients using minimally invasive techniques can reduce the postoperative wound morbidity associated with conventional open surgery, allowing initiation of systemic chemotherapy earlier in this patient population.

PATHOLOGY

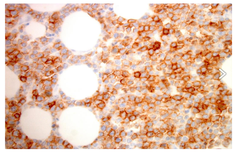


- Tissue biopsy demonstrates monomorphic neoplastic lymphocytes with aberrant T cell phenotype, + for CD3, CD8, CD56, TIA1 & T cell receptor gamma or delta

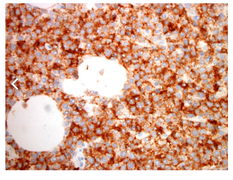
CD 3+



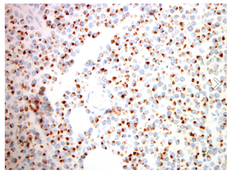
CD 20+



CD 8+



TIA1



CONCLUSIONS

- This case highlights the importance of recognizing this rare presentation of lymphoma in the acute care setting to ensure timely oncological referral and initiation of chemotherapy.
- The use of minimally invasive surgical techniques in initial management can mitigate postoperative wound morbidity, thereby facilitating earlier administration of systemic therapy and optimizing patient outcomes

Guo X, Wang Y. Monomorphic epitheliotropic intestinal. PathologyOutlines.com website. https://www.pathologyoutlines.com/topic/lymphomameitl.html. Accessed March 4th, 2025.